DOCUMENT RESUME

ED 330 004 CS 507 405

AUTHOR Eaves, Michael
TITLE The Elaboration Likelihood Model and Proxemic Violations as Peripheral Cues to Information Processing.
PUB DATE Oct 90
NOTE 25p.; Paper presented at the Annual Meeting of the Florida Communication Association (Tallahassee, FL, October 18-20, 1990).
PUB TYPE Speeches/Conference Papers (150) -- Information Analyses (070) -- Reports - Evaluative/Feasibility (142)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Communication Research; *Discourse Analysis; *Information Processing; *Nonverbal Communication; *Personal Space; *Persuasive Discourse; Research Methodology
IDENTIFIERS *Distraction; *Elaboration Likelihood Model; Message Responses

ABSTRACT

This paper provides a literature review of the elaboration likelihood model (ELM) as applied in persuasion. Specifically, the paper addresses distraction with regard to effects on persuasion. In addition, the application of proxemic violations as peripheral cues in message processing is discussed. Finally, the paper proposes to shed new light on the subject and inspire future efforts in distraction, elaboration likelihood, and nonverbal research on the basis that the ELM promises to be a newer and crisper explanation of several aspects of distraction and persuasion. Fifty-nine references are attached. (Author/SG)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED330004

The Elaboration Likelihood Model and Proxemic Violations as Peripheral Cues to Information Processing

Michael Eaves

Department of Communication

Florida State University

BEST COPY AVAILABLE

Presented at the 1990 Convention of the FCA

in the Student Section

held in Tallahassee, Fl. on October 18-20, 1990

CS507405

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Michael Eaves

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

X This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

Running Head: THE ELABORATION LIKELIHOOD MODEL

Abstract

This paper provides a literature review of the elaboration likelihood model (ELM) as applied in persuasion. Specifically, distraction is addressed with regard to effects on persuasion. In addition, the application of proxemic violations as peripheral cues in message processing is discussed. Finally, this paper hopes to shed new light and inspire future efforts in distraction, elaboration likelihood and nonverbal research.

The Elaboration Likelihood Model and Proxemic Violations as Peripheral Cues to Information Processing

Throughout the later half of the twentieth century, communication and psychology scholars have been interested in the persuasion process. There have been, however, many contradictions in persuasion research. This paper has several purposes: 1) to illustrate the current dilemma faced in the distraction and persuasion literature; 2) to illustrate the effect of proxemic violations acting as distractions; 3) to explain the application of the Elaboration Likelihood Model (ELM) in distraction research; 4) to argue for the application of proxemic violations as peripheral cues in message processing; and 5) to shed new light on distraction, elaboration likelihood, and nonverbal research.

CURRENT DILEMMA IN DISTRACTION RESEARCH

History of Distraction Research

The authors of the distraction hypothesis state that if a distraction is present when a person is exposed to a persuasive message, then he or she will focus more on the distraction than on the message. The distraction interferes with the subject's subvocal argument against the message. Most studies present a counterattitudinal message, the receiver sub-vocally opposes the message at a conscious or sub-conscious level, the distraction

interferes with counterargument development, and the receiver builds less information countering the message. One major problem with distraction research is that researchers cannot agree about the effect of thought disruption upon message acceptance.

Festinger and Maccoby (1964) conducted one of the first studies about the effect of distraction upon persuasion. The experimenters delivered an anti-fraternity message to fraternity members. The control group viewed an anti-fraternity film. On the other hand, the manipulated group viewed an irrelevant film about an award-winning painter while only listening to the anti-fraternity message. The manipulated group was distracted since they were unable to watch the anti-fraternity film but only listened to it. Because they could not generate as many counterarguments, subjects in the manipulated group, as expected, expressed more opinion change.

In a supporting study, Kiesler and Mathog (1968) suggest that attitude change should be greater when the source is credible during distraction. The extent to which distraction increases attitude change should depend upon the degree of attributed credibility.

These viewpoints on distraction and persuasion prompted harsh criticism. McGuire (1966) criticized Festinger and Maccoby's work for ignoring learning theory. McGuire believed that distraction would interfere with message processing by

inhibiting essential comprehension levels. Since the receiver would process or learn less, there would be a low probability of accepting the message. Indeed, the soundness of the distraction hypothesis has been criticized (Buller, 1986). Shamo and Meador (1969) found that while distraction did reduce the recall of certain elements in the message, the distraction still produced attitude change towards the message. Thus, the impact of message recall upon attitude change has not been determined in precise terms.

Aside from questionable results about recall, message comprehension and its effect on attitude change is equally disturbing. Research suggests that a significant reduction of message comprehension has to occur before it affects attitude change (Insko, Turnbull & Yandell, 1974). The controversy prompted researchers in the 1970s and 1980s to try to replicate findings in the Festinger and Maccoby study. Zimbardo, Synder, Thomas, Gold, and Gurwitz (1970) supported learning theory. The researchers disproved conceptual and experimental notions of the distraction hypothesis.

Arguments for distraction, while unoriginal, continued throughout the 1970s and 1980s. For instance, Osterhouse and Brock (1970) found that under the high-distraction condition there was a tendency toward higher communication acceptance scores. On the other hand, under the no-distraction condition, communication acceptance scores tended to be lower since

counterargument was still at a high rate. Recall was found to be irrelevant to attitude change. However, they did not reconcile their results with previous findings.

Baron, Baron, and Miller (1973) provided a unique perspective in the distraction literature. These researchers noted one part of the Festinger and Maccoby study that was ignored by many opponents:

> Since Festinger and Maccoby (1964, p.360) recognized that distraction could only enhance persuasion if it did not interfere with comprehension of the persuasive message, these disconfirmations may not be particularly troublesome (p.311).

This statement may appear ironic since distraction itself should interfere with counterarguments. To this extent, one must ask how counterarguments can be interfered with and have no effect upon message comprehension.

Current Dilemma Faced in Distraction Research

Many attempts were unsuccessful in replicating the distraction hypothesis (Breitrose, 1966; Gardner, 1966; Vohs & Garrett, 1968). Several experimenters employed uninteresting messages that produced low-involved subjects. For example, Breitrose (1966) used topics including New Zealand politics and eyeglasses. Other studies (Miller & Baron, 1973; Miller & Levy, 1967) have been successful in replicating the distraction hypothesis.

In later studies (Brandt, 1979; Keating & Brock, 1974; Lammers & Becker, 1980; Regan & Cheng, 1973; Stacks & Burgoon, 1981), researchers supported the distraction hypothesis, but did not account for earlier contradictory findings. The ELM would suggest that involvement is a key factor in determining the subject's message processing, central or peripheral. Central processing would include focusing on the content while peripheral processing would include focusing on non-content elements (e.g., proxemic violations, credibility, and physical attraction). The high-involved subject should centrally process the message while the low-involved subject should peripherally process the message (Petty & Cacioppo, 1986). In addition, peripheral processing should be equally successful as central processing when the subject is less involved. However, peripheral processing is much weaker than central processing when the subject is highly involved.

Counter-Attitudinal Advocacy and Tuition Increase

A tuition increase topic has been used in studies since the late 1950s. Generally, no pretest is used to measure the subject's attitude since there has been almost unanimous student opposition to a tuition increase (Brock, 1967; Brock & Becker, 1965, 1966; Brock & Blackwood, 1962; Osterhouse & Brock, 1970; Petty & Cacioppo, 1986).

The tuition topic is typically selected because subjects should have a good opportunity to be involved. The students

should have "vested interest" in a tuition increase topic (Petty & Cacioppo, 1986). In most cases, students are given three minutes to write down their thoughts about the message.

PROXEMIC VIOLATIONS AS DISTRACTORS

Now that the pertinent literature has been reviewed, distraction should be operationalized as proxemic violations.

Definitional Framework of Proxemics

While there are several definitions of proxemics, many scholars refer to Hall's definition, "the study of man's transactions as he perceives and uses intimate, personal, social, and public space in various settings while following out-of-awareness dictates of cultural paradigms" (1974, p. 2). A more recent definition of proxemics is the study of how people use the space around them during face-to-face interactions (Ciolek, 1983). A comprehensive definition of proxemics would be the study of the ways in which territory, distance, and space communicate meanings during interaction. Territory is the boundary or zone that a person establishes as a protection against intrusion. Distance is the measure of space inside or outside of that territory. Space is the area surrounding an individual (Strube & Werner, 1984).

Personal Space as the Operative Proxemic Variable

Although one can find several definitions of personal space, many differ only in their wording rather than in meaning. A basic definition of personal space is the area surrounding a

person's body claimed as exclusive space (Strube & Werner, 1984). Similarly, Hayduk (1978) defines personal space as an individual's area into which others cannot intrude without causing discomfort.

Altman (1975), on the other hand, defines personal space not as an area but as "a mechanism used to regulate interpersonal interaction and to achieve a desired level of privacy" (p. 54). Several researchers use the term "bubble" to help explain personal space. For example, Ciolek (1983) defines it as a bubble surrounding an individual in unfocused interaction. Hayduk (1983) argues that the bubble analogy is weak because when two bubbles are pressed together, they repel one another, unlike personal space where the other's body, not boundary, is repelled.

With all these definitions in mind, a concise and original definition of personal space is the perceived area of one's boundary that protects him or her from invasion. The term "personal" suggests that personal space serves an individual function, and this function is one of protection.

Proxemic Violations as Distraction

A person usually maintains an "optimum level" of distance between others during interaction. Nonverbal expectancy, including expected distance, serves as a precondition for the person, in that he or she expects that this variable will not be affected in the interaction (Burgoon & Jones, 1976; Burgoon, Newton, Walther & Baesler, 1989). One contention is that a

violation of expected distance will serve as a distraction to message processing.

Some scholars have shown when expected interaction is violated during persuasion, the subject will shift the focus to the violation (Langer, 1978; Langer & Imber, 1980). Research suggests that violations of expected distances or distraction will produce a shift from the speaker's message to the speaker's personality characteristics which may include credibility (Burgoon & Jones, 1976; Hayduk, 1978, 1983; Wu & Shaffer, 1987).

Methodological Concerns in Proxemic and Persuasion Research

There are two primary measurement techniques in proxemic research: real-life and projective. Real-life measures have more reliability than projective measures (Hayduk, 1983). While a questionnaire, a projective technique, is often used in proxemic studies, the subjects should not have to imagine a situation. Instead, the subjects could simply respond to questions about the interaction with the confederate. A self-report measure may share methodological weaknesses with a silhouette placement measure, however, self-reported data can be used to help better predict behavior and improve construct development (Norton, 1980). Researchers have found good reliability when using self report to study personal space (Webb, Worchel, & Brown, 1986).

One real-life measure that can be used in proxemic research is chair placement. For example, the chair placement measure is

used, subjects could be asked by the confederate to "have a seat and make yourself comfortable." The chair could face the wall in the room in which the subject entered. This could be done so the subject, as opposed to the confederate, will carefully place the chair in the optimal space. The subject should place the chair at a comfortable distance from the seated confederate. There have been consistent findings when using chair placement (Daniell & Lewis, 1972; Hayduk, 1978).

Since the subject will decide his or her expected distance, a reduction or expansion of space between the experimenter and the subject by 50% should be enough to create a violation of the subject's expected distance. For example, if the subject were to choose four feet, the experimenter would invade or withdraw approximately two feet into or away from the subject's decided space.

Assigning the space between the experimenter and the subject would not only deny studying expected distance, but would also incorporate a normative distance that has produced contradictory results (Hall, 1966; Rosenfeld, 1965; Sommer, 1969). The preferred method is to allow the subject to decide his or her own spatial preference. Such methods have been successfully used in previous studies (Altman, 1975; Burgoon & Hale, 1988; Ciolek, 1983; Hayduk, 1978).

APPLICATION OF THE ELM TO DISTRACTION

Applying the ELM to distraction research

One key application of the ELM to distraction research is the addition of an omitted variable from earlier research: argument strength. Petty and Cacioppo (1986) suggest that distraction should increase persuasion when the argument is weak and decrease persuasion when the argument is strong. In brief, if the argument is weak, the distraction would interfere with objectionable thoughts about the message, thus increasing the probability of attitude change. On the other hand, if the argument is strong, the distraction would interfere with favorable thoughts about the message, thus decreasing the probability of attitude change (O'Keefe, 1990).

The ELM first appeared in advertising and consumer research in the early 1980s. Brief sketches of ELM were outlined (Petty & Cacioppo, 1981) and later became a fully developed model (Cacioppo & Petty, 1984; Petty & Cacioppo, 1986). Several studies have reviewed the ELM (Cacioppo & Petty, 1989; Heesacker, 1986; O'Keefe, 1990; Reinard, 1988). In addition, the ELM has been used to explain smoking behavior in adolescents (Chassin, Presson, & Sherman, 1990).

The ELM has not enjoyed criticism-free status. One criticism of the ELM is the curvilinear relationship that may exist between variables (including distraction) and attitude change, especially concerning subject involvement (O'Keefe, 1990;

Stiff, 1986). The ELM suggests that there is a linear relationship between involvement and message elaboration, however. As a person is more involved in the message, he or she should be more likely to elaborate on the message or change his or her attitude toward the message. Stiff's critique is not based on significant findings, to a large extent, and therefore must be questioned as to attack of the ELM (Petty & Cacioppo, 1986).

According to the ELM, there are two types of cues: central and peripheral. Central cues are issue-relevant cues such as content. On the other hand, peripheral cues are non issue-relevant cues such as physical attractiveness, delivery, or distance between the interactants (Cacioppo, Petty, & Stoltenberg, 1985; Cialdini, Petty, & Cacioppo, 1981; Petty & Cacioppo, 1986).

Another criticism of the ELM is that the model requires the subject to make a choice between central or peripheral processing. Under the ELM, a person cannot use parallel processing of the message or process both central and peripheral cues simultaneously (Stiff & Boster, 1987). Stiff and Boster suggest that one can process both cues simultaneously. Petty, Cacioppo, Kasmer, and Haugtvedt (1987) suggest, however, that parallel processing is irrelevant to the ELM. Parallel processing can occur under any processing technique, central or peripheral. In addition, Petty and Cacioppo (1986) suggest that

one may centrally and peripherally process the message simultaneously.

The critiques are dismissed due to insufficient sample sizes, lack of statistical significance, or analytical problems (Petty, Cacioppo, Kasmer, & Haugtvedt, 1987; Petty, Kasmer, Haugtvedt, & Cacioppo, 1987). Other results have been reported supporting the ELM (O'Keefe, 1990; Petty & Cacioppo, 1986).

In this paper, the author argues that a proxemic violation will act as a distraction and become a peripheral cue. In addition, a peripheral cue is more likely to produce attitude change when the message is weak rather than strong. Thus, the peripheral cue would disrupt unfavorable thought production of the message.

Several studies (Cacioppo, Petty, Kao, & Rodriguez, 1986; McGinley, LeFevre, & McGinley, 1975; Petty & Cacioppo, 1986) suggest that subjects whose expected distance is not violated should centrally process the message. The group that centrally processes the message should have more immediate and lasting attitude change than the group that peripherally processes the message. The distracted group should elaborate less and resist lasting attitude change (Fromme et al., 1989; Petty, Cacioppo, Sedikides, & Strathman, 1988).

These findings are important in the current persuasion literature. The ELM should help explain that the strength of the message will decide, in part, whether or not the subject will

centrally or peripherally process the message. Generally, if the message is weak, there should be little difference between low- and high-involved subjects and attitude change. When the message is strong, however, high-involved subjects should be less likely to change their attitude than their low-involved counterparts.

FUTURE RESEARCH CONSIDERATIONS

There are several areas that deserve attention in persuasion research. First, while there have been studies which have examined distraction, the author found no study that examined distraction from proxemic violations. Second, proxemic violations as distractors have not been examined in light of the ELM. The ELM should be helpful in explaining the contradictions in the distraction literature. Third, this perspective is more realistic because the subject would be presumably unaware of the meaning of the distance violation. In previous research (Festinger & Maccoby, 1964), the subject was acutely aware of the flashing lights acting as distractors, thus the distraction may have been more on a conscious level. Fourth, a flight condition should improve the spectrum of what constitutes an expected distance violation. The author found no study that used a flight condition. The ELM should help explain the effects of invasion and flight as distractors or peripheral cues to message processing.

SUMMARY

This paper should serve as a stepping stone to future persuasion research. The ELM promises to be a newer and crisper explanation of several aspects of distraction and persuasion. The benefits of the ELM are summarized by O'Keefe (1990):

> Indeed, the ELM's capacity to account for conflicting findings from earlier research makes it an especially important theoretical framework, and unquestionably the most promising recent theoretical development in persuasion research (p. 109).

References

Altman, I. (1975). The environment and social behavior: Privacy, personal space, territory, crowding. Montery, CA: Brooks/Cole.

Baron, R. S., Baron, P. H., & Miller, N. (1973). The relation between distraction and persuasion. Psychological Bulletin, 80, 310-323.

Brandt, D. R. (1979). Listener propensity to counterargue, distraction, and resistance to persuasion. Central States Speech Journal, 30, 321-331.

Breitrose, H. S. (1966). The effect of distraction in attenuating counterarguments. Unpublished doctoral dissertation, Stanford University. In Baron, R. S., Baron, P. H., & Miller, N. (1973). The relation between distraction and persuasion. Psychological Bulletin, 80, 310-323.

Brock, T. C. (1967). Communication discrepancy and intent to persuade as determinants of counterargument production. Journal of Experimental Social Psychology, 3, 269-309.

Brock, T. C., & Becker, L. A. (1965). Ineffectiveness of "overheard" counterpropaganda. Journal of Personality and Social Psychology, 2(5), 654-660.

Brock, T. C., & Becker, L. A. (1966). "Debriefing" and susceptibility to subsequent experimental manipulations. Journal of Experimental Social Psychology, 2, 314-323.

Brock, T. C., & Blackwood, J. E. (1962). Dissonance reduction, social comparison, and modification of others' opinions. Journal of Abnormal and Social Psychology, 65(5), 319-324.

Buller, D. B. (1986). Distraction during persuasive communication: A meta-analytic review. Communication Monographs, 53, 91-114.

Burgoon, J. K., Hale, J. L. (1988). Nonverbal expectancy violations: Model elaboration and application to immediacy behaviors. Communication Monographs, 55, 58-79.

Burgoon, J. K., & Jones, S. B. (1976). Toward a theory of personal space expectations and their violation. Human Communication Research, 2, 1131-1146.

Burgoon, J. K., Newton, D. A., Walther, J. B., & Baesler, E. J. (1989). Nonverbal expectancy violations and conversational involvement. Journal of Nonverbal Behavior, 13(2), 97-119.

Cacioppo, J. T., & Petty, R. E. (1984). The Elaboration Likelihood Model. Advances in Consumer Research, 11, 673-675.

Cacioppo, J. T., & Petty, R. E. (1989). Effects of message repetition on argument processing, recall, and persuasion. Basic and Applied Social Psychology, 10(1), 3-12.

Cacioppo, J. T., Petty, R. E., Kao, C. F., & Rodriguez, R. (1986). Central and peripheral routes to persuasion: An individual difference perspective. Journal of Personality and Social Psychology, 51(5), 1032-1043.

Cacioppo, J. T., Petty, R. E., & Stoltenberg, C. (1985). Processes of social influence: The elaboration likelihood model of persuasion. In P. Kendall (Ed.), Advances in cognitive behavioral research and therapy (Vol. 4). New York: Academic Press.

Chassin, L., Presson, C. C., & Sherman, S. J. (1990). Social psychological contributions to the understanding and prevention of adolescent cigarette smoking. Personality and Social Psychological Bulletin, 16(1), 133-151.

Cialdini, R. B., Petty, R. E., & Cacioppo, J. T. (1981). Attitude and attitude change. Annual Review of Psychology, 32, 357-404.

Ciolek, T. M. (1983). The proxemics lexicon: A first approximation. Journal of Nonverbal Behavior, 8, 55-79.

Daniell, R. J., & Lewis, P. (1972). Stability of eye contact and physical distance across a series of structured interviews. Journal of Consulting and Clinical Psychology, 39, 172.

Festinger, L., & Maccoby, N. (1964). On resistance to persuasive communication. Journal of Abnormal and Social Psychology, 68, 359-366.

Fromme, D. K., Jaynes, W. E., Taylor, D. K., Hanold, E. G., Daniell, J., Rountree, J. R., & Fromme, M. L. (1989). Nonverbal behavior and attitudes toward touch. Journal of Nonverbal Behavior, 13(1), 3-14.

Gardner, D. M. (1966). The effect of divided attention on attitude change induced by a marketing communication. In R. M. Haus (Ed). Science, technology, and marketing, 532-540, Chicago: American Marketing Association.

Hall, E. T. (1966). The hidden dimension. New York: Doubleday.

Hall, E. T. (1974). Handbook for proxemic research. Washington, DC: Society for the Anthropology of Visual Communication.

Hayduk, L. A. (1978). Personal space: An evaluative and orienting overview. Psychological Bulletin, 85, 117-134.

Hayduk, L. A. (1983). Personal space: Where we now stand. Psychological Bulletin, 94, 293-335.

Heesacker, M. (1986). Counseling pretreatment and the elaboration likelihood model of attitude change. Journal of Counseling Psychology, 33(2), 107-114.

Insko, C. A., Turnbull, W., & Yandell, B. (1974). Facilitative and inhibiting effects of distraction on attitude change. Sociometry, 37, 508-528.

Keating, J. P., & Brock, T. C. (1974). Acceptance of persuasion and the inhibition of counterargumentation under various distraction tasks. Journal of Experimental Social Psychology, 10, 301-309.

Kiesler, S. B., & Mathog, R. B. (1968). Distraction hypothesis in attitude change: Effects of effectiveness. Psychological Reports, 23, 1123-1133.

Lammers, H. B., & Becker, L. A. (1980). Distraction: Effects on the perceived extremity of a communication and on cognitive responses. Personality and Social Psychology Bulletin, 6, 261-266.

Langer, E. (1978). Rethinking the role of thought in social interaction. In J. H. Harvey, W. J. Ickes & R. F. Kidd (Eds.), New directions in attribution research, (Vol.2, pp. 35-58). Hillsdale, N. J.: Lawrence Erlbaum.

Langer, E. J., & Imber, L. (1980). Role of mindlessness in the perception of deviance. Journal of Personality and Social Psychology, 39, 360-367.

McGinley, H., LeFevre, R., & McGinley, P. (1975). The influence of a communicator's body position on opinion change in others. Journal of Personality and Social Psychology, 31, 686-690.

McGuire, W. J. (1966). Attitudes and opinions. Annual Review of Psychology, 17, 475-514.

Miller, N., & Baron, R. S. (1973). On measuring counterarguing. Journal of the Theory of Social Behavior, 3, 101-118.

Miller, N., & Levy, B. H. (1967). Defaming and agreeing with the communicator as a function of emotional arousal, communication extremity, and evaluative set. Sociometry, 30, 158-175.

Norton, R. W. (1980). The illusion of systematic distortion. Human Communication Research, 7(1), 88-96.

O'Keefe, D. J. (1990). Persuasion: Theory and research. Urbana, Ill.: University of Illinois Press.

Osterhouse, R. A., & Brock, T. C. (1970). Distraction increases yielding to propaganda by inhibiting counterarguing. Journal of Personality and Social Psychology, 15, 344-358.

Petty, R. E., & Cacioppo, J. T. (1981). Attitudes and persuasion: Classic and contemporary approaches. Dubuque, IA: Wm. C. Brown.

Petty, R. E., & Cacioppo, J. T. (1986). Communication and persuasion: Central and peripheral routes to attitude change. New York: Springer-Verlag.

Petty, R. E., Cacioppo, J. T., Kasmer, J. A., & Haugtvedt, C. P. (1987). A reply to stiff and boster. Communication Monographs, 54, 257-263.

Petty, R. E., Cacioppo, J. T., Sedikides, C., & Strathman, A. J. (1988). Affect and persuasion: A contemporary perspective. American Behavioral Scientist, 31(3), 355-371.

Petty, R. E., Kasmer, J. A., Haugtvedt, C. P., & Cacioppo, J. T. (1987). Source and message factors in persuasion: A reply to stiff's critique of the elaboration likelihood model. Communication Monographs, 54, 233-249.

Regan, D. T., & Cheng, J. B. (1973). Distraction and attitude change: A resolution. Journal of Experimental Social Psychology, 9, 138-147.

Reinard, J. C. (1988). The empirical study of the persuasive effects of evidence: The status after fifty years of research. Human Communication Research, 15(1), 3-59.

Rosenfeld, H. M. (1965). Effect of an approval-seeking induction on interpersonal proximity. Psychological Reports, 17, 120-122.

Shamo, G. W., & Meador, L. M. (1969). The effect of visual distraction upon recall and attitude change. Journal of Communication, 19, 157-162.

Sommer, R. (1969). Personal space: The behavioral basis of design. Englewood Cliffs, N. J.: Prentice-Hall.

Stacks, D. W., & Burgoon, J. K. (1981). The role of nonverbal behaviors as distractors in resistance to persuasion in interpersonal contexts. Central States Speech Journal, 32, 61-73.

Stiff, J. B. (1986). Cognitive processing of persuasive message cues: A meta-analytic review of the effects of supporting information on attitudes. Communication Monographs, 53, 75-89.

Stiff, J. B., & Boster, F. J. (1987). Cognitive processing: Additional thoughts and a reply to petty, kasmer, haugtvedt, and cacioppo. Communication Monographs, 54, 250-256.

Strube, M. J., & Werner, C. (1984). Personal space claims as a function of interpersonal threat: The mediating role of need for control. Journal of Nonverbal Behavior, 8, 195-209.

Vohs, J. L., & Garrett, R. L. (1968). Resistance to persuasion: An integrative framework. Public Opinion Quarterly, 32, 445-452.

Webb, W. M., Worchel, S., & Brown, E. H. (1986). The influence of control on self-attributions. Social Psychology Quarterly, 49, 260-267.

Wu, C., & Shaffer, D. R. (1987). Susceptibility to persuasive appeals as a function of source credibility and prior experience with the attitude object. Journal of Personality and Social Psychology, 52(4), 677-688.

Zimbardo, P. G., Snyder, M., Thomas, J., Gold, A., & Gurwitz, S. (1970). Modifying the impact of persuasive communications with external distraction. Journal of Personality and Social Psychology, 16, 669-680.